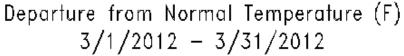
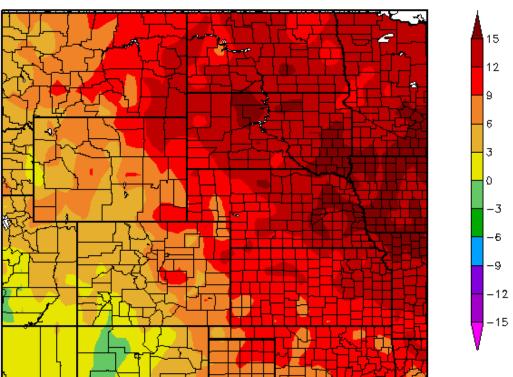
Record March Warmth Could Lead to an Increased Risk for Freeze Damage

By Barb Mayes Boustead, NWS Omaha/Valley, NE

March 2012 was the warmest on record across eastern Nebraska and western Iowa, as well as much of the central United States. Numerous records have been set for warmest daily temperatures this month. The warm weather has been triggered by a number of weather and climate factors, including strong southerly winds near and just above the ground, a jet stream pattern that has locked cold air well north of the central United States, lack of a snowpack to the north, and a persistently positive North Atlantic Oscillation, which is a weather pattern that favors warmth in the eastern and central United States. More explanation of the warm March weather can be found from NOAA's Earth Systems Research Laboratory.

This year marks the warmest March to date on record at Omaha, Lincoln, and Norfolk. With well above normal temperatures expected through the rest of March, a record warm March is possible.





Generated 4/1/2012 at HPRCC using provisional data.

Regional Climate Centers

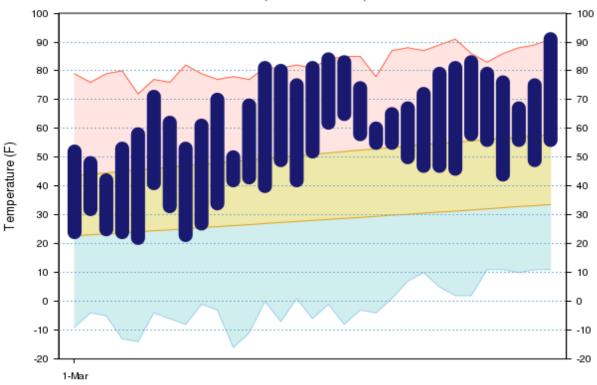
The records that were broken at each site in March are listed below.

Omaha

Date	Record	Reading	Previous Record
March 13	Warm Max Temp	81	80 (2007)
March 14	Warm Min Temp	49	48 (1945, 1902)
March 16	Warm Min Temp	52	49 (2003)
March 16	Warm Max Temp	81	81 (Ties with 1966)
March 17	Warm Min Temp	62^	56 (1894
March 17	Warm Max Temp	84^	84 (Ties with 1894)
March 17	Warm Avg Temp	73^	70 (1894)
March 18	Warm Min Temp	65^	57 (1903)
March 20	Warm Min Temp	55	50 (1972)
March 31	Warm Max Temp	91*	88 (1946)

^{*} All-time records for the month of March

Temperature Summary for Omaha Area Mar 1, 2012 - Mar 31, 2012



Observed daily maximum and minimum temperatures are connected by dark blue bars.

Area between normal maximum and minimum temperatures has tan shading.

Red line connects record high temperatures. Light blue line connects record low temperatures.

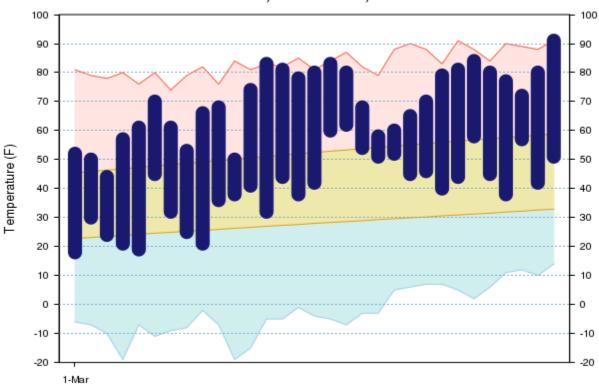
[^] Record earliest readings to reach that temperature

Lincoln

Date	Record	Reading	Previous Record
March 13	Warm Max Temp	83	80 (2007)
March 17	Warm Min Temp	60^	58 (1894)
March 17	Warm Avg Temp	71.5^	71 (1894)
March 18	Warm Min Temp	62^	56 (1903)
March 20	Warm Min Temp	51	49 (1894)
March 31	Warm Max Temp	91*	88 (1946)

^{*} All-time records for the month of March

Temperature Summary for Lincoln Area Mar 1, 2012 - Mar 31, 2012



Observed daily maximum and minimum temperatures are connected by dark blue bars.

Area between normal maximum and minimum temperatures has tan shading.

Red line connects record high temperatures. Light blue line connects record low temperatures.

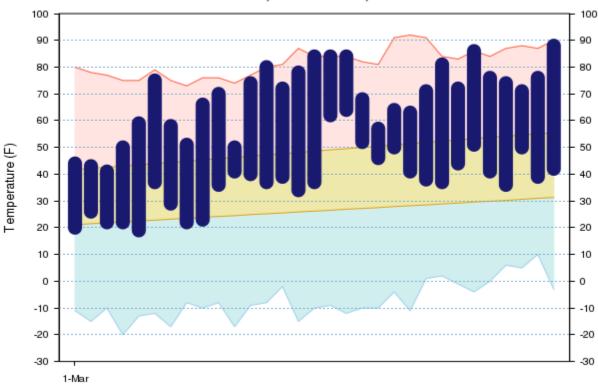
[^] Record earliest readings to reach that temperature

Norfolk

Date	Record	Reading	Previous Record
March 13	Warm Max Temp	80	76 (1946)
March 16	Warm Max Temp	84	78 (2009)
March 17	Warm Min Temp	62^	57 (1894)
March 17	Warm Max Temp	84	79 (1994)
March 17	Warm Avg Temp	73*^	71 (1943)
March 18	Warm Min Temp	64*^	48 (1921)
March 18	Warm Max Temp	84	82 (1921)
March 20	Warm Min Temp	46	46 (Ties with 1894)
March 21	Warm Min Temp	50	50 (Ties with 1938)
March 26	Warm Min Temp	51	51 (Ties with 2004)
March 26	Warm Max Temp	86	84 (1989)

^{*} All-time records for the month of March

Temperature Summary for Norfolk Area Mar 1, 2012 - Mar 31, 2012



Observed daily maximum and minimum temperatures are connected by dark blue bars.

Area between normal maximum and minimum temperatures has tan shading.

Red line connects record high temperatures. Light blue line connects record low temperatures.

[^] Record earliest readings to reach that temperature

Despite the warm March, it remains possible that freezing temperatures still could reach the area. The last time temperatures were at or below freezing was on March 9 at Omaha and Norfolk (27 and 23 degrees, respectively) and March 13 at Lincoln (32 degrees). There is little relationship between how warm March temperatures are and the date of the last freeze. In other words, a warm March is often followed by a freeze in April or May. Early-blooming plants and flowers, and early-planted crops, will be susceptible to a freeze, especially if temperatures to 28 °F or colder (a "hard freeze") or if the freeze occurs on more than one day. The median date of the last freeze is around April 20 across the area, which means that a freeze occurs after around April 20 in half of the years on record. Thus, the risk for a freeze after early plant development is high this year.

Average Last Freeze (32 °F or colder)

	Omaha	Lincoln	Norfolk
Period of Record	April 18	April 22	May 2
1981-2010	April 20	April 25	April 27
2002-2011	April 20	April 24	April 29

5 Earliest Last Freezes

	Omaha		Lincoln		Norfolk
1	March 21 (1925)	1	March 27 (1925)	1	April 6 (1977)
2	March 28 (1878)	2	March 31 (1969)	2	April 9 (1948)
3	March 29 (1941)	3	April 1 (1991)		April 9 (1993)
4	March 30 (1991)	4	April 2 (1895)	4	April 10 (1991)
5	March 31 (1906)		April 2 (1924)	5	April 12 (1987)

5 Latest Last Freezes

	Omaha		Lincoln		Norfolk
1	May 13 (1997)	1	May 29 (1947)	1	May 29 (1947)
2	May 11 (1946)	2	May 16 (1940)	2	May 25 (1925)
3	May 9 (1898)	3	May 15 (1983)	3	May 24 (1924)
4	May 8 (1980)		May 15 (1973)		May 24 (1897)
5	May 7 (1885)		May 15 (1907)	5	May 22 (1963)
					May 22 (1931)

Last Freeze Dates for the 5 Warmest Marches

Omaha

Year	March Avg Temp	Last Freeze
1910	54.5	April 24
1946	50.2	May 11
1878	48.3	March 28
1918	47.1	April 20
2007	46.3	April 15

Lincoln

Year	March Avg Temp	Last Freeze
1910	53.4	May 3
1946	50.3	May 12
2007	48.0	April 15
1918	46.7	April 25
1945	46.1	May 5

Norfolk

Year	March Avg Temp	Last Freeze
1910	50.5	May 13
1946	47.6	May 12
2007	44.6	April 15
1921	44.0	May 14
1918	44.0	May 10

For more details about the month of March locally, see the monthly climate reports for <u>Omaha</u>, <u>Lincoln</u>, and <u>Norfolk</u>.

Click <u>here</u> to follow the last freeze and beginning of the growing season across the central United States.

Click <u>here</u> to see the 8- to 14-day outlook from the <u>NWS Climate Prediction Center</u>, which will depict the chance for temperatures to be above or below normal. Chances for below normal temperatures would mean that the risk for a freeze is developing.

If you have any questions, please contact: Barbara Mayes Boustead Meteorologist/Climate Program Manager (402) 359-5166 oax.webmaster@noaa.gov